

20161003 BoRit CAG Meeting Minutes

Date: Monday, October 3, 2016

Time: 6:30 PM

Location: Upper Dublin Township Building

I. **Call to Order:** Meeting opened at 6:30PM by Sal Boccuti. Bob Adams, Co-Chair arrived at 7:00PM.

II. **Welcome and Announcements**

III. **Reading and Approval of Minutes**

IV. **Presentation**

Speaker: Doug Jerolmack, Principal Investigator for the Fate and Transport of Asbestos, University of Pennsylvania-School of Arts and Sciences

Doug Jerolmack, Principal Investigator for the Fate and Transport of Asbestos University of Pennsylvania-School of Arts and Sciences, presented an in-depth slide presentation and report on his findings reference the ability of asbestos to move through soil; a long time subject of debate for the CAG. The presentation was followed by a Question/Answer session.

Mr. Jerolmack stated the investigators used soil obtained from the BoRit site, by itself and in combination with humic acid, fulvic acid, organic carbon and compost leachate (these are what are known as colloids, natural gels that occur around plant roots and in the presence of carbonaceous debris), and introduced asbestos fibers in solution to see if there would be “breakthrough” e.g. asbestos would move through the soil and come out the other end of the soil medium. They found that asbestos moves if:

- It is of small size relative to the soil particle size.
- Dissolved carbon is present above 3 mg/L

Discussion on factors that influence asbestos movement in soil:

- State of asbestos-single fibers did not move as much as aggregated fibers, e.g. clumps of fibers
- Soil-water chemistry on the site
- Soil-water density; saturation was most important factor allowing movement of fibers
- Mr. Jerolmack stressed that this is very preliminary. They don't understand why organic carbon causes breakthrough. Tests were completed under lab conditions did not take into effect soil content (BoRit soils have high clay content, which might act as a barrier to movement) or soil compaction from bulldozer movement.

Next Steps/Questions that require further testing:

- Directly image particles moving in clear porous media.
- Are there other unknown pathways of exposure?
- How are particles transported and transformed in the body?
- Is particle clumping occurring in the lungs?

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Questions and Answer Session

Q: Diane Morgan-Is the information being presented the same information presented to American Chemical Society?

A: *Mr. Jerolmack-Yes, but press release was premature. Research has not been peer reviewed and should not have gone public at the time it was released.*

Q: Peter Lowry-Were the experiments replicated for each soil mix type?

A: *Jerolmack- Yes, 10 times for each mix, with reliable results.*

Q: Peter Lowry-Is next step real world core samples?

A: *Mr. Jerolmack-We hope so.*

Q: Dave Froehlich-Do colloids in the experiments replicate the real world colloids found on the site?

A: *Mr. Jerolmack-We don't know, but maybe.*

Q: Sal Boccuti-Can you take samples from the same locations that EPA did during the site assessment?

A: *Mr. Jerolmack-Yes.*

Q: Andrew Salvadore-What effect does Asbestos' specific gravity, which is lighter than water, have on its movement? Will it float?

A: *Jerolmack-Only in clumps. Individual fibers, once you get them past the surface tension of water, will sink.*

Q: Bob Adams- Did you account for soil compaction from earth moving work?

A: *Mr. Jerolmack-No.*

V. Elections

The CAG conducted its yearly voting for Co-chairs.

Since Co-Chair Gordon Chase resigned, his seat as Co-Chair was up for a vote as well as Bob Adams' Co-Chair seat. Steven Maroldo and Sharon Vargas ran for the Co-Chair seat.

- Bob Adams was re-elected to the Co-Chair seat.
- Sharon Vargas was elected to the Co Chair seat.

After reconvening, Bob Adams asked EPA for any new information on the Gessner well testing. Greg Voigt, EPA, explained that they had ruled out contamination reaching the well from the BoRit site. It appeared to be coming down hill from the Ambler side. They are now trying to pin down where it might be originating.

VI. Next Steps/Old Business

- **Final Recommendations:** Bob Adams asked EPA when we might expect the final recommendations for the BoRit site. Joe McDowell, EPA, said probably by the end of October. The issuance of the report will start the 30-day clock for public comments.
- **Gessner-Response Letter:** Greg, EPA, stated there is continued monitoring and that it is determined contaminants are coming from uphill.

- **Herbaceous Plantings:** Andrew Salvadore expressed concern about the herbaceous plantings on the Pile site, reservoir island and Wissahickon banks. Andrew further stated the grass/vegetation was extremely high and mentioned the string grid on the island. Bob Adams said that EPA had done so at the request of the CAG and the strings were a measure taken to keep birds out of the area until vegetation was stable. No timeframe was given to remove the strings or cut the grass. Andrew requested this be noted. It was stated during the open conversation trees fall potentially exposing asbestos containing material. It was noted herbaceous plants were chosen because they contain erosion, sustain themselves and don't topple over, potentially exposing ACM as trees would.

Salvadore expressed concern about rodent holes and Canada geese on the site. There was some discussion about whether the site is completely fenced. It is completely fenced-in on the Ambler side; the Wissahickon Creek acts as a deterrent fence on the west side.

- VII. **Meeting Adjourned:** There being no further business, the meeting adjourned at 8:30PM. Next meeting is scheduled for Wednesday, December 7, 2016 at 6:30PM.